

CLAIMS

1. A method of manufacturing an electronic part in which circuit element (s) is formed on a surface of a ceramic substrate and conductive balls are used as terminals of the electronic part, comprising:

a first step of forming circuit element (s) on the surface of a large ceramic substrate including division grooves longitudinally and laterally provided on the surface thereof;

a second step of fixing the conductive balls to terminal portions of the circuit element (s); and

a third step of applying stress to the large ceramic substrate to open the division grooves, to divide the substrate, the first, second, and third steps being performed in the stated order,

characterized in that the stress to be applied in the third step is substantially equally applied to a large number of conductive balls, or the stress is applied to the substrate and/or the circuit element, or a part of the stress is substantially equally applied to a large number of conductive balls and a remainder of the stress is applied to the substrate and/or the circuit element.

2. A method of manufacturing an electronic part in which circuit element (s) is formed on a surface of a ceramic substrate and conductive balls are used as terminals of the electronic part, comprising:

an eleventh step of forming circuit element (s) on the surface of a large ceramic substrate;

a twelfth step of fixing the conductive balls to terminal portions of the circuit element(s);

a thirteenth step of forming division grooves for the large ceramic substrate on the surface of the substrate on which the circuit element(s) exists; and

a fourteenth step of applying stress to the large ceramic substrate to open the division grooves, to divide the substrate, the eleventh, twelfth, thirteenth, and fourteenth steps being performed in the stated order,

characterized in that the stress to be applied in the fourteenth step is substantially equally applied to a large number of conductive balls, or the stress is applied to the substrate and/or the circuit element, or a part of the stress is substantially equally applied to a large number of conductive balls and a remainder of the stress is applied to the substrate and/or the circuit element.

3. A method of manufacturing an electronic part according to claim 1 or 2, wherein the third step or the fourteenth step is performed in a state in which a buffer member having a concave portion is located on the surface of the large ceramic substrate to which conductive balls are fixed to house the conductive balls in the concave portion and a portion of the buffer member which becomes a convex portion relative to a presence of the concave portion is in contact with the surface of the substrate and/or the circuit

element.

4. A method of manufacturing an electronic part according to any one of claims 1 to 3, wherein the division grooves exist on the surface of the substrate to which conductive balls are fixed.

5. A method of manufacturing an electronic part according to any one of claims 1 to 4, wherein the division grooves exist on the surface of the substrate to which conductive balls are fixed.

6. A method of manufacturing an electronic part according to any one of claims 1 to 5, wherein the conductive balls are fixed to the substrate using a conductive bonding agent.